Amendments to the Claims

1. (Currently Amended) A heat exchanger suitable as part of a heating, ventilation and/or air-conditioning device, particularly of an automotive vehicle, said heat exchanger comprising:

a plurality of modules (14, 100) stacked in a first direction, connected to an inlet pipe (22, 82, 101) and to an outlet pipe (24, 84, 102) for a first fluid and suitable for circulating said first fluid, characterized in that said modules comprise two series of distinct channels (137, 138, 139) suitable for receiving said first fluid and a second fluid, the second fluid being conveyed by at least a third pipe (91, 104, 105); and

[[a]] the plurality of modules (100) ~~stacked in a first direction,~~ each being formed of three mutually joined plates, that is a first plate (108) turned toward a first end of the stack, a second plate (109) turned toward a second end of the stack and a third intermediate plate (110), the plates each extending, substantially along the same contour, in second and third directions substantially perpendicular to each other and perpendicular to the first direction, the modules being separated from each other, in at least one median region, in order to define intervals (106) between them for the passage of an air flow in the third direction, and the plates being stamped in order to define ~~passages~~ the channels (137-139) in each module for the circulation of the first and second heat transfer fluids in the second direction, respectively on either side of the intermediate plate (110), and having, in two end regions located on either side of said at least one median region, openings (116, 117, 124, 125, 127, 130, 131, 132, 136) for enabling the various modules to receive the first and second fluids, the plates being connected together to be sealed to the fluids around the openings, and at their periphery (111) in each module;

each plate having, in a first of said end regions, first and second openings (116, 117, 136) for the circulation of the first fluid in the two directions respectively, and a third opening (130, 131, 132) for the circulation of the second fluid in the first direction, and, in

the second of said end regions, a fourth opening (124, 125, 127) for the circulation of the second fluid in the second direction.

2. (Original) The heat exchanger as claimed in claim 1, in which one of the first and second fluids is immobile in said channels, the exchanger performing a static storage function.

3. (Original) The heat exchanger as claimed in claim 1, in which the first and second fluids flow in said channels, the exchanger performing a dynamic storage function.

4.-11. (Cancelled)

12. (Currently Amended) The heat exchanger as claimed in claim 1, in which the ~~passages~~ channels for the circulation of the second fluid have a thickness of between 1 and 5 mm in the first direction.

13. (Cancelled)

14. (Previously Presented) The heat exchanger as claimed in claim 1, in which the third opening is arranged between the first and second openings in the second direction.

15. (Previously Presented) The heat exchanger as claimed in claim 1, in which the fourth opening is elongated in the second direction.

16. (Previously Presented) The heat exchanger as claimed in claim 1, in which the first plate (108) of a module and the third plate (110) of a neighboring module

have respective mutually supporting projections (112, 113) in which the corresponding first and second openings (116, 117) are arranged, the first and second openings (136) of the second plate of said neighboring module being crossed in a sealed manner by the projections of said third plate.

17. (Previously Presented) The heat exchanger as claimed in claim 1, in which the third opening (131) of the first plate (108) of a module is adjacent to that (132) of the third plate (110) of the same module and to that (130) of the second plate (109) of a neighboring module, the latter opening being arranged in a projection (128).

18. (Previously Presented) The heat exchanger as claimed in claim 1, in which the first plate (108) of a module and the second plate (109) of a neighboring module have respective mutually supporting projections (120, 121) in which the corresponding fourth openings (124, 125) are arranged, the first and third plates (110) of a module being connected in a sealed manner at an annular zone (111, 134) surrounding the projection (120) of the first plate and the opening (127) of the third plate.

19. (Previously Presented) The heat exchanger as claimed in claim 1, in which the second direction is substantially vertical, said first end region being the upper region and the second fluid flowing upward.

20. (Previously Presented) The heat exchanger as claimed in claim 1, constituting an air-conditioning evaporator, in which the second heat transfer fluid is suitable for passing from the liquid state to the solid state when it receives cold from the first heat transfer fluid and, vice versa, when it restores the cold.

21. (Original) The heat exchanger as claimed in claim 20, in which the second heat transfer fluid has a melting point of between 0 and 10°C. and preferably between 4 and 7°C.

22. (Original) The heat exchanger as claimed in either of claims 20 and 21, in which the second heat transfer fluid has an enthalpy of fusion of at least 150 kJ/kg.

23. (Previously Presented) The heat exchanger as claimed in claim 20, in which the second heat transfer fluid is selected from tetradecane, paraffins, hydrated salts and eutectic mixtures.

24. (Previously Presented) The heat exchanger as claimed in claim 1, in which the heat exchange area between the first and second fluids in the heat exchanger is between 0.5 and 1.5 m^2.

25. (Previously Presented) The heat exchanger as claimed in claim 1, in which the direct heat exchange area in contact with the second fluid in the heat exchanger is between 0.5 and 1.5 m^2.

26. (Previously Presented) The heat exchanger as claimed in claim 1, in which at least part of the spaces provided in the heat exchanger for the circulation of the second fluid in thermal contact with the first fluid and/or with an air flow is lined with a highly porous heat-conducting foam.

27. (Previously Presented) A heating, ventilation and/or air-conditioning comprising:

a heat exchanger having a plurality of modules (14, 100) stacked in a first direction, connected to an inlet pipe (22, 82, 101) and to an outlet pipe (24, 84, 102) for a first fluid and suitable for circulating said first fluid, characterized in that said modules comprise two series of distinct channels (137, 138, 139) suitable for receiving said first fluid and a second fluid, the second fluid being conveyed by at least a third pipe (91, 104, 105); and

at least a first closed loop (BF, BC) in which said heat exchanger (BF5, BC2) is crossed by an air flow (F) and in which said first fluid can circulate so as to give up heat or cold to said air flow in the heat exchanger (BF5, BC2), and a second closed loop (BSf, BSc) in which said second fluid can circulate between said heat exchanger (BF5, BC2) and a tank (BSf2, BSc2) so as to receive heat or cold from the first heat transfer fluid in the heat exchanger to store it in the tank (BSf2, BSc2) to restore it to the air flow (F) in the heat exchanger, according to the heating or cooling capacity produced by the first loop and the air flow treatment requirements; [[.]]

the plurality of modules (100) each being formed of three mutually joined plates including a first plate (108) turned toward a first end of the stack, a second plate (109) turned toward a second end of the stack and a third intermediate plate (110), the plates each extending, substantially along the same contour, in the second and third directions substantially perpendicular to each other and perpendicular to the first direction, the modules being separated from each other, in at least one median region, in order to define intervals (106) between them for the passage of an air flow in the third direction, and the plates being stamped in order to define the channels (137-139) in each module for the circulation of the first and second heat transfer fluids in the second direction, respectively on either side of the intermediate plate (110), and having, in two end regions located on either side of said at least one median region, openings (116, 117, 124, 125, 127, 130, 131, 132, 136) for enabling the various modules to receive the first and second fluids, the plates being connected together to be sealed to the fluids around the openings, and at their periphery (111) in each module;

each plate having, in a first of said end regions, first and second openings (116, 117, 136) for the circulation of the first fluid in the two directions respectively, and a third opening (130, 131, 132) for the circulation of the second fluid in the first direction, and, in the second of said end regions, a fourth opening (124, 125, 127) for the circulation of the second fluid in the second direction.

28. (Original) The use as claimed in claim 27, in which the second loop contains between 200 and 500 g of the second fluid.

29. (Previously Presented) The heat exchanger as claimed in claim 26, wherein the highly porous heat-conducting foam is graphite.

30.-31. (Cancelled)